

Greenshank—are more numerous, and there are few Sanderlings or Turnstones. Moreover, Kentish Plover is not found regularly this far south.

Between Kismaayo and the Kenya border there are other coastal sites that might hold important numbers of waders, notably the large lagoons at Bur Gabo, and these need to be investigated. North of Kismaayo, however, the feeding possibilities for species such as Curlew Sandpiper and Little Stint are perhaps very limited for hundreds of kilometres along the east-facing Somalia coast.

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Observations on the behaviour and call of Hartlaub's Bustard *Eupodotis hartlaubii*

In mid-November 1984, observations were made of three male Hartlaub's Bustards *Eupodotis hartlaubii* in tall grassland with scattered *Acacia drepanolobium* close to Lion Dip in Nairobi National Park, Kenya. The bustards were easy to observe from a motor vehicle at distances down to 10 m.

Several species of bustards Otididae, belonging to the genus *Eupodotis*, are well known from dramatic aerial displays which are often referred to as 'rocket' or 'parachute' flights (Urban *et al.* 1986). Such a display has not, however, been described for Hartlaub's Bustard (Osborne *et al.* 1984). Nevertheless, it was in part due to these flights that our attention was drawn to the birds. The displaying males were visible over long distances, their flights revealing striking white plumage in the wings that was largely hidden at rest. The bustards flew up steeply to 15–20 m, and then descended with a glide, their wings widely spread and slightly raised, their legs dangling.

Virtually nothing is known of the breeding behaviour of Hartlaub's Bustard (Urban *et al.* 1986) and although we are unable to throw any light on its context, we describe here a call sequence in detail. Males adopted an alert stance, sufficiently distinct to allow an observer to expect calling to follow. The head was then drawn slowly down on to the back,

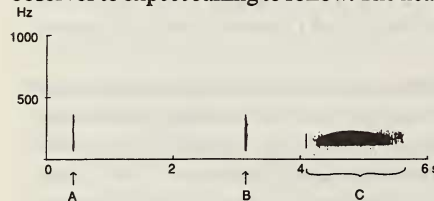


Fig. 1. Sonogram of the call of a male Hartlaub's Bustard *Eupodotis hartlaubii*

while the skin on the neck became swollen and loosened to produce a pouched effect. The remainder of the sequence occurred in three distinct stages. First, the bill opened as if to gulp in air, and a barely audible click was made. Then the head was quickly raised, the neck continuing to swell further, and a short *tok* call was made, apparently with the bill closed (although a photograph on page 30 of Osborne *et al.* (1984) reveals that the bill may be open). Finally, with the neck fully extended and widely swollen, and the head and bill pointed up, a deep drawn out boom was given. During this last call, the neck deflated, the deflation continuing and the bill being lowered before the bird returned to a normal standing posture or walked off. It is interesting to note that this sequence is the approximate reverse of that shown by the Black-bellied Bustard *E. melanogaster* when calling (illustrated on page 178 of Urban *et al.* (1986)).

The calls carried poorly and were only audible at close quarters. Indeed, we were only alerted to the first click after listening to the tape recording we made. A sonogram (Fig. 1) confirmed that the call had three elements: the first was short and vibrated (A), and the second short and low (B), while the third was longer, vibrated and preceded by a short click (C), its pitch increased and then decreased slowly (Chappuis *in litt.*).

An entirely different call was heard when the bird was disturbed by the car and just before or after a display flight. Again the call was hard to hear, but sounded like a gentle *u-kuk-kuk*.

The three males performed a similar sequence, with some possible variation in the strength of the third element. At no time did we observe a female bustard in the vicinity of a calling male and the extremely quiet nature of the call is puzzling. The advertisement call of the Black-bellied Bustard can be heard over at least 100 m in still air (pers. obs.). It is possible, however, that there were females nearby for they are cryptically patterned and might have been overlooked in the long grass.

Acknowledgements

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